

IN THE SPECIFICATIONS

[0038] As disclosed in co-pending United States Patent Application Ser. No. 10/746,071 ~~****~~ filed on December 24, 2003 ~~under attorney docket number 414-34433~~, one method of taking into account the metal housing is to use a reference signal. In Fig. 10A, signals are obtained at a depth-to-boundary of 4m, 6m, 8m, and 10m using a transmitter-receiver spacing of 0.5m. As shown in Fig. 10A, the signals at these distances are early indistinguishable from one another. These curves are collectively labeled as 1000. An obtained signal due to a pipe outside a formation is shown in curve 1020. Differential signals obtained by subtracting pipe signal 1020 are shown in Figure 10B. Curves for a depth-to-boundary spacing of 4m, 6m, 8m, and 10m are shown as 1004, 1006, 1008, and 1010 correspondingly. The resolution of the differential signals is clearly better than the resolution of the original signal.